

REMARKS

Reconsideration and allowance of the present patent application based on the following remarks are respectfully requested.

Claims 1-3, 8, 10-15, 18 and 23-25 are presently pending. Claims 4, 9, 16, 17, 19-22 and 26-28 have been canceled without prejudice or disclaimer. Claim 8 has been amended for clarity. Support for the instant amendments is provided throughout the as-filed specification. Thus, no new matter has been added. As such, claims 1-3, 8, 10-15, 18 and 23-25 are currently presented for examination of which claim 1 is independent.

Objection to the Danish Priority Document

The Examiner objected to the Danish priority document as allegedly not being a proper certified copy. Applicants submit that the Danish priority document is a proper certified copy. The Examiner based the objection on a variety of grounds, first of which is the fact that the pages other than the front page show markings indicated that they were faxed. If the original Danish application was faxed to the Danish Patent Office, is that not what one would expect? Equally, if the specification was faxed between interested parties prior to filing and the pages received were copied for filing at the Danish Patent Office, this would be the expected result. This circumstance provides no rational basis for alleging that the copy provided is not a 'proper certified copy'. The document provided to the USPTO is a certified copy as issued by the Danish Patent Office.

Objection has further been raised that there is no ribbon hole through all of the papers. Again, the Danish Patent Office is under no obligation to adopt a particular form of attachment of the parts of the certified copy they issue.

Lastly, the Examiner noted that it is puzzling that the pages of the certified document are in English. This fact is not in the least bit unusual. To avoid translation costs, Danish Patent Attorneys very frequently file their case in English and the Danish Patents Act allows for this action. Generally, such priority basis filings are not ever translated into Danish because they are replaced by European Patent applications in English designating Denmark at the European Patent Office or by an English language PCT application designating the EPO. Accordingly, we request that the objection to the Danish Certified Copy be withdrawn.

#### Objections to the Drawings

Applicants have submitted replacement drawing sheets mooted the objections made to the drawings. In addition, objection was taken against the alleged omission from the drawings of the flow path forming a closed circuit (claim 8). Applicants submit that this feature is adequately illustrated in the amended Figure 3 filed on December 14, 2000. Applicants note that this objection was raised in the Office Action of August 16, 2000 and has not been repeated since. If the amended Figure 3 of December 14, 2000 is thought not to show the feature adequately, we respectfully request further guidance as to why.

#### Objections to the Specification

Applicants have amended claim 8 mooted the objections to the Specification.

#### Objections to the Claims

Objection has been taken to claims 3 and 8 for defining substantial structures in relation to the further definition of the means plus function expression in claim 2 i.e. ‘means for defining a flow path for said water’, which according to claim 3 is to comprise the light source. This structure is illustrated in Figure 2 for instance, where the lamp defines one boundary surface of the water flow path. Reference for this objection was made by the Examiner to MPEP § 2181. MPEP § 2181 does not contain anything germane to this issue of whether it is permissible to further define a means plus function restriction by stating what physical components contribute to providing it in a preferred embodiment. We respectfully request that the Examiner withdraw this objection, or particularize the words in MPEP § 2181 that are alleged to be germane to the issue.

#### Prior Art Rejections

Claims 1 and 23 were rejected as being unpatentable over U.S. Patent No. 5,620,478 to Eckhouse (“Eckhouse”) in combination with U.S. Patent No. 1,677,016 to Berry (“Berry”).

Prior to this Office Action, the Board of Patent Appeals and Interferences (the ‘Board’) held that the invention of Claim 1 was not anticipated by Eckhouse and was not obvious over a combination of Eckhouse and Gustafsson. Eckhouse was considered by the Board to disclose

two embodiments, the first (Figure 1) showing apparatus failing to satisfy claim 1 in that it lacked the use of fluid in this embodiment for cooling or for any other purpose and noted that this embodiment did not disclose the use of high repetition rates. Eckhouse second embodiment (Figure 4) was held by the Board to disclose a light source and an optical fiber, with water therebetween, the water being very effective for cooling the light source if high pulse repetition rates were used. The fluid also had the benefit of reducing losses associated with glass to air transitions. The Board further held that the water could operate as a filter.

It was held that the combination of Eckhouse and Gustafsson did not make the invention obvious in particular because Eckhouse did not disclose with respect to Figure 1 that cooling was needed. The disclosure of cooling in relation to Figure 4 was seen as suggesting indeed that for Figure 1 cooling was not needed. Further, the mention of high repetition rates in Eckhouse in connection with cooling in Figure 4 was seen as confirming that cooling would not be needed in an apparatus as per Figure 1 because that would not use high flash repetition rates.

Thus the Board concluded that the Examiner erred in determining that it would have been obvious to modify the device of Eckhouse' figure 1 to include cooling water, even taking account of Gustafsson. Clearly, the Board equally would not have considered it obvious to modify Eckhouse Figure 1 in this way solely on the basis of Eckhouse Figure 4 embodiment and teaching.

Applicants submit that the Examiner, in raising the present rejection, has not paid appropriate deference to the decision of the Board. The Examiner now relies on Eckhouse (seemingly Eckhouse Figure 1) and takes the position that Berry makes it obvious to incorporate water cooling into Eckhouse Figure 1 embodiment. However, the Examiner does not explain with reference to the decision of the Board why Berry is a more compelling teaching in this respect than either Eckhouse' Figure 4 teaching or Gustafsson.

Berry discloses an internal applicator of UV light essentially similar to that of Eckhouse Figure 4. Like the apparatus of Figure 4 of Eckhouse, the lamp in Berry is surrounded by a water jacket which acts as a filter and provides cooling. However, the Board recognized that in relation to an internal light applicator, Eckhouse Figure 4 provided all this.

The Examiner alleges that it would be obvious to employ the cooling system of Berry in the device of Eckhouse because Eckhouse teaches that it is important to keep the tissue surface cool. This disregards and contradicts the finding of the Board that in relation to the embodiment

of Figure 1, Eckhouse does not disclose a need for cooling and indeed teaches away from such a need by omitting mention of it in contrast to its mention in relation to Figure 4.

Berry supplies nothing that the Board did not already find in Eckhouse' Figure 4 embodiment. Moreover, Eckhouse discloses in relation to Figure 1 that the device is to be suitable for treatment of external skin disorders in which evaporation of the skin by achieving a very high instantaneous temperature is obtained at the skin surface (column 7, lines 34-41). The skilled reader would expect that the inclusion of water to filter out heating wavelengths and to provide a cooling system would be incompatible with this function of the Eckhouse Figure 1 device. In so far as Eckhouse disclosed a need to control the skin temperature, it avoids any suggestion of cooling in relation to Figure 1 (despite clearly being aware of the possibility) and instead suggests monitoring of the skin temperature using a detector 22 or a second detector.

The combination of Eckhouse with Berry is therefore also improper and purely based on hindsight in that the two forms of apparatus are for very different purposes. Eckhouse Figure 1 embodiment is for skin surface treatment with long wavelength light, UV being cut off by low cut off filters (column 5, line 53) or converted to visible by a fluorescent material (column 5, line 56). Berry on the other hand is a device for UV light application (column 1, line 11) to the interior of the body, not to the skin. The Examiner has in effect reacted to the judgment of the Board by replacing one inadequate combination of art with a still weaker one without paying any attention or deference to the reasoning of the Board.

Thus, for the above cited reasons, Eckhouse and Berry fail to disclose all of the elements recited in applicants' claimed invention, thereby failing to make applicants' invention a predictable use of prior art elements. Further, Eckhouse and Berry fail to provide a basis to establish obviousness under additional rationales, including simple substitution for one known element for another to obtain predictable results, use of known technique to improve similar device in the same way, applying a known technique to a known device ready for improvement to yield predictable results, obvious to try, and the presence of a teaching, motivation, or suggestion. Thus, reconsideration and withdrawal from this rejection, and allowance of claims 1 and 23 is respectfully requested.

Claims 1-3 and 8 have been rejected under 35 USC §103 as being unpatentable over Eckhouse in combination with Berry and further in view of Gustafsson.

The allegation now repeated by the Examiner that in Gustafsson the cooling system makes the lamp much more effective was specifically rejected by the Board at page 8 of the decision, it being pointed out that it is not the cooling which Gustafsson says makes the device more efficient, but rather its entire construction. This in particular involved the use of Rhodamin for converting unwanted lamp wavelengths to desired ones.

The Examiner's contention that it would have been obvious to employ the lamp and cooling system of Gustafsson in the device of Eckhouse as modified by Berry is hard to follow. Once Berry has been combined with Eckhouse, one already has a lamp and a cooling system (from Berry) and it cannot be seen what Gustafsson then contributes. If one in fact removes Berry's lamp and cooling from the combination and replaces it with Gustafsson's, one reproduces exactly the combination which the Board held not to be obvious (i.e. Eckhouse + Gustafsson). Once again, Applicants submit that the Examiner is not paying due attention or deference to the reasoning of the Board.

Thus, for the above cited reasons, Eckhouse, Berry and Gustafsson fail to disclose all of the elements recited in applicants' claimed invention, thereby failing to make applicants' invention a predictable use of prior art elements. Further, Eckhouse, Berry and Gustafsson fail to provide a basis to establish obviousness under additional rationales, including simple substitution for one known element for another to obtain predictable results, use of known technique to improve similar device in the same way, applying a known technique to a known device ready for improvement to yield predictable results, obvious to try, and the presence of a teaching, motivation, or suggestion. Thus, reconsideration and withdrawal from this rejection, and allowance of claims 1-3 and 8 is respectfully requested.

Claims 10-15, 24, and 25 were rejected as being unpatentable over Eckhouse in combination with Berry and U.S. Patent No. 5,320,618 to Gustafsson ("Gustafsson") as applied to claims 1-3 and 8 above, and further in view of U.S. Patent No. 5,735,844 to Anderson et al. ("Anderson") and "High Performance Flash and Arc Lamps" to PerkinElmer Optoelectronics ("Optoelectronics").

This is a combination of no less than five separate documents and it seems unlikely that such an elaborate combination would be made by an skilled worker. Moreover, it flies in the face of the decision of the Board at page 8 final paragraph where this combination (save for Berry) was rejected. The Examiner has put forward no case as to why adding Berry to this mix

of references should alter the position found by the Board. Berry, as pointed out above, in reality adds nothing to the disclosure already present in Eckhouse regarding Figure 4. These claims are dependent on claim 1 and the supplementary references do nothing to address the shortcomings of Eckhouse, Berry and Gustafsson as regards the inventiveness of the subject matter of claim 1.

Thus, for the above cited reasons, Eckhouse, Berry, Gustafsson, Anderson, and Optoelectronics fail to disclose all of the elements recited in applicants' claimed invention, thereby failing to make applicants' invention a predictable use of prior art elements. Further, Eckhouse, Berry, Gustafsson, Anderson, and Optoelectronics fail to provide a basis to establish obviousness under additional rationales, including simple substitution for one known element for another to obtain predictable results, use of known technique to improve similar device in the same way, applying a known technique to a known device ready for improvement to yield predictable results, obvious to try, and the presence of a teaching, motivation, or suggestion. Thus, reconsideration and withdrawal from this rejection, and allowance of claims 10-15, 24, and 25 is respectfully requested.

Claim 18 was rejected as being unpatentable over Eckhouse in combination with Berry and Gustafsson as applied to claims 1-3 and 8 as above, and further in view of U.S. Patent No. 3,703,176 to Vassiliadis et al. ("Vassiliadis").

Claim 18, which depends upon claim 1, is allowable for at least the reasons described above with respect to claim 1. This is a combination of no less than four separate documents and it seems unlikely that such an elaborate combination would be made by an skilled worker. Moreover, it flies in the face of the decision of the Board at page 8 final paragraph where this combination (save for Berry) was rejected. The Examiner has put forward no case as to why adding Berry to this mix of references should alter the position found by the Board. Berry, as pointed out above, in reality adds nothing to the disclosure already present in Eckhouse regarding Figure 4. These claims are dependent on claim 1 and the supplementary references do nothing to address the shortcomings of Eckhouse, Berry and Gustafsson as regards the inventiveness of the subject matter of claim 1.

Thus, for the above cited reasons, Eckhouse, Berry, Gustafsson and Vassiliadis fail to disclose all of the elements recited in applicants' claimed invention, thereby failing to make applicants' invention a predictable use of prior art elements. Further, Eckhouse, Berry, Gustafsson and Vassiliadis fail to provide a basis to establish obviousness under additional

rationales, including simple substitution for one known element for another to obtain predictable results, use of known technique to improve similar device in the same way, applying a known technique to a known device ready for improvement to yield predictable results, obvious to try, and the presence of a teaching, motivation, or suggestion. Thus, reconsideration and withdrawal from this rejection, and allowance of claim 18 is respectfully requested.

CONCLUSION

Having addressed each of the foregoing rejections, it is respectfully submitted that a full and complete response has been made to the outstanding Office Action and, as such, the application is in condition for allowance. Notice to that effect is respectfully requested.

Please charge any fees associated with the submission of this paper to Deposit Account Number **033975 (Ref. No. 011765-0254781)**. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Respectfully submitted,



PILLSBURY WINTHROP SHAW PITTMAN LLP  
TYSON Y. WINARSKI  
Reg. No. 41381  
Tel. No. 703.770.7948  
Fax No. 703.770.7901

Date: February 27, 2008  
P.O. Box 10500  
McLean, VA 22102  
(703) 770-7900

IN THE DRAWING(S):

The attached sheets of drawings include changes to Figures 6a-c, 7 and 9. These sheets replace the original sheet showing Figures 6a-c, 7 and 9.

Attachment: Replacement Sheets.